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ANALYSIS OF GRAIN EXPORT PROGRAMS

A REPORT OF THE
TECHNICAL COMMITTEE ON GRAIN EXPORTS

Miscellaneous Publication No. 905

UNITED STATES DEPARTMENT OF AGRICULTURE

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Washington 25, D. C.

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Summary

Secretary's Memorandum No. 1471, dated October 26, 1961, established a Technical Committee on Grain Exports to collect and examine data and information related to CCC grain export policies and operations; analyze the economic and trade significance of collected information; explore and appraise alternative CCC policies; and summarize findings and prepare recommendations for CCC policy or procedural change. The purpose of this review was stated as follows:

> The commodity export programs of the Commodity Credit Corporation are one of the major instruments for carrying out Department responsibilities for managing and utilizing the nation's grain stocks. The Corporation's grain export policies and sales activities serve, and are of great concern to, producers, the grain trade, the public and the Congress. Of special expressed interest are the Corporation's policies covering the use of PIK (payment-in-kind) certificates for payment of export subsidies, the interchangeability of PIK certificates, the use of PIK certificates to pay for commodities for donation programs, the extent that export grain should be drawn from private and Government stocks, and related matters. It appears wise to have a general review of those special matters relating to grain exports.

The technical committee has given major attention to the kind of export program that would give optimum results to farm producers, the grain trade, Commodity Credit Corporation, and the taxpayer. Results of alternative export programs have been analyzed with respect to their probable effects on domestic production and consumption, exports, farm prices and incomes, and CCC inventory management and costs.

The programs analyzed include the current program (program I), with payments-in-kind being made from CCC stocks to cover the difference between domestic market prices and world prices for the various grains exported. Under this program, certain exceptions occur. These include foreign emergency relief, barter sales, Government donations through charitable organizations, and credit sales, all to come from CCC stocks or purchases on the open market. And export subsidies for wheat flour and cotton textiles are paid in cash rather than in export certificates.

Program II is a cash subsidy export program, again with exceptions for emergency relief, barter, donations, and credit sales to come from CCC stocks or purchases.

Program III would provide cash subsidies for normal dollar sales (when subsidies are needed), with the balance of exports being drawn from CCC stocks or purchases.

Program IV would include no subsidies but rather sales from CCC stocks or purchases to meet all export requirements except those generated in the free market when domestic prices are in line with world prices.

For all the grains, it is estimated that domestic production and total exports would not be changed by virtue of a change in the form of export program.

Prices and hence farm income would tend to be higher under either a PIK or a cash subsidy export program than under a program where exports come largely from CCC stocks. This is because the PIK or cash subsidy program encourages the trade to bid for export supplies in the open market, enhancing open market demand. In contrast, sales from CCC stocks for export tend to depress prices, since the export outlet is denied to free-market supplies, the excess of which must ultimately find its way into the hands of CCC under the price-support program.

In the case of wheat and rice, domestic consumption would not be measurably changed by variation in export programs and market prices. Consumer demand for these products is highly inelastic, and it is estimated that the modest rise in prices under a PIK or cash subsidy program would have no measurable effect on the quantity consumed domestically.

For corn, grain sorghums, and other feed grains, however, an export program that drew heavily on CCC stocks at the expense of open-market supplies and caused market prices to go down would encourage increased animal feeding of feed grains and result in cumulative lowering of stocks. It is estimated, for example, that CCC stocks of corn as of September 30, 1962, would be about a tenth lower had program IV (sales from CCC stocks) been in effect rather than PIK beginning in 1958. This is without consideration of the effect of sales of CCC feed grains against pooled certificates under the 1961 price support program. The accumulation of stocks in the hands of CCC would be largest of all under a cash subsidy export program, not alone because of the higher domestic prices and reduced animal feeding, but because of the inability of the trade to draw on CCC stocks as is possible under PIK. In the case of corn, grain sorghums, and other feed grains, PIK has been superior to a cash subsidy export program in minimizing the buildup in Government inventory.

This leads to the question of how adequately CCC inventories might be managed under the different forms of export programs. In general, turnover is highest for programs that draw most heavily on CCC stocks. For wheat, however, this factor is not so important as it is for corn and grain sorghums. With a relatively high rate of export subsidy, redemptions of wheat from CCC stocks against PIK certificates represent a substantial part of total exports. Moreover, most of the wheat in CCC inventory is stored on a commingled basis and is represented by warehouse receipts with grade guaranteed by the warehouseman. For rice, the type of export program is not greatly important in inventory management, as the in-and-out movement each year is large for all programs considered.

For corn and grain sorghums, a high percentage of CCC inventory is held at sites where quality is not guaranteed and where rate of turnover is important in inventory management. Sales for export from CCC stocks (program IV) give the highest turnover. For corn, an estimated 13 to 18 percent of CCC inventory annually would have been involved had such a program been in effect from 1958 through 1961, and for sorghums, 10 to 23 percent of CCC inventory would have been involved. Rate of turnover under PIK at around 5 to 6 percent was second highest. A cash subsidy export program would have given the lowest turnover, only 2 to 4 percent annually for corn and 1 to 4 percent for grain sorghums. Grain from CCC stocks would have been needed only under the barter, CCC credit, and donation programs.

Handling, storage, transportation, and other current costs of acquiring, holding, and disposing of CCC inventories also vary with the kind of export program in effect. For wheat and rice, such costs would be lowest under a cash subsidy export program, but for corn and grain sorghums, costs to CCC would have been among the highest under the cash subsidy program. Why? It is because domestic consumption of food grains is not affected by the kind of export program but domestic use is reduced for the feed grains when prices are highest, as would be the case under a cash subsidy program. With reduced consumption of the feed grains, more is held by CCC and hence the higher costs.

Costs to CCC under the PIK export program were almost as low as estimated costs under cash subsidy in the case of wheat (5 percent higher than cash subsidy cost). For corn, costs were lowest under PIK; for grain sorghums, costs were second lowest under PIK (3 percent higher than under Government sales).

On balance then, for wheat, farm prices and incomes would be highest and operating costs to CCC lowest under a cash subsidy export program. The PIK program gave results almost as favorable. In addition, PIK required a smaller Government capital investment than the cash program, and the export subsidy was less (for wheat, 1 to 2 cents times the number of bushels exported).

The cash subsidy program, which for wheat would yield highest prices and incomes to farmers and lowest costs to Government, would seem to offer the greatest advantage. But the turnover of CCC stocks would be severely reduced and this would be a disadvantage, even though warehouse receipts are held for most of the wheat in storage. Some wheat is held by CCC in out-of-line storage, as the 35 to 40 million bushels held in the reserve fleet, and much is in intermediate position with in-transit privilege for which there is a renewal charge annually after the first 2 years if the wheat is not moved. It is important to have the opportunity of moving CCC wheat more frequently than is possible under a cash subsidy export program. PIK would permit considerably more turnover of CCC wheat than a cash subsidy program.

For rice, farm prices and incomes were estimated to be the same under all programs considered. Costs to CCC, however, were lowest under the cash subsidy and next lowest under PIK.

For corn and grain sorghums, either PIK or cash subsidies would give the best results in terms of farm prices and incomes, but Government sales for export would be superior in terms of increased turnover of Government stocks, increased domestic consumption, and reduced Government inventories. PIK gave lowest operating costs for corn and second lowest for grain sorghums. PIK would be next best in reducing Government inventories for both corn and grain sorghums. PIK, finally, has the strong advantage of allowing market forces to operate normally while providing for some turnaround in price-support stocks.

If domestic price programs in the future provide for partial support through payments in kind, as the feed-grain program does this year, the unrestricted sales of corn and other feed grains by CCC against certificates redeemed by growers provide a further means of rotating feed grains in CCC inventory. Thus, the limited turnover of feed grains provided by the PIK export program is augmented.

It has been suggested that PL 480 Title I sales of grain for export (sales for foreign currencies) be made directly by CCC rather than by private exporters. Such sales are over and above normal exports and are, in effect, negotiated by the Government when it works out its individual country PL 480 agreements. A question here is whether private trade handles the exports at less cost than the Government. Factual information on this is not available. It seems reasonable to assume, however, that the cost advantage may rest with the private trade. Some exporters own and operate warehouses, barge lines, and wharf facilities. It is possible for them to minimize costs of exporting at certain points and bid strongly for the export business. On the other hand, the rate of turnover of CCC stocks would be substantially increased for wheat but not for corn and grain sorghums if CCC were to provide all Title I exports from its inventory. Title I sales of feed grains have been small in relation to total exports. Stocks of corn are being turned rapidly by sales against pooled certificates under the 1961 and 1962 feed grain programs. Stocks of grain sorghums and barley also are being sold against such certificates. Supplying Title I exports from CCC stocks rather than having them acquired on the open market would tend to give reduced farm prices and incomes for wheat, but this would not materially affect prices of other grains. Government operating expenses, however, would go up for all the grains as total volume goes up.

Producer and trade opinion appears to be divided on the question of complete interchangeability of PIK export grain certificates. An advantage to making such certificates completely interchangeable, that is, good for redemption at face value in any of the grains in CCC inventory regardless of the commodity in which they are earned, would be to strengthen their convertibility into cash through sales to other exporters. A possible disadvantage is that local grain prices might suffer by shifting the redemptions away from the original source of the grain that gave rise to the certificates. But total exports of any of the grains would not be affected, and little can happen to local prices to put them appreciably out of line with national price-making forces. A further possible disadvantage is that switches from one grain to another might have adverse effects on management of CCC inventories. Most PIK certificate value is generated by wheat, and the trend in switching, if it occurs, is likely to be away from wheat toward the feed grains.

At present, cash rather than PIK export certificates is paid by CCC for flour and cornmeal for foreign donation programs. This course is supported by producers, grain millers, and exporters. It is stated that small millers in particular would be at a disadvantage if they had to accept script redeemable in export grain instead of cash. Another factor affecting trade opinion is that the total value of certificates redeemable in export grain would be increased if payments for flour and meal were made in script, and more of the total export movement of grains would be through CCC and less through the open market.

It is possible that the normal domestic price structure is distorted by export subsidies. It is difficult to generalize here. This is a subject that requires great care in analysis because of the many interrelated factors affecting supply, demand, and prices in individual cases.

Announced subsidies for exports of feed grains have been requested in lieu of the bid subsidies now in effect. Principal exponents of announced subsidies are producer groups and the smaller exporters who see in this a greater opportunity for them to compete with the larger firms in the export business. Announced subsidies are made for wheat and rice, with a requirement of registration of export sales for wheat but not for rice. It is argued that announced subsidies for feed grains are not feasible unless accompanied by the registration of sales.

A proposal has been made to extend deferred shipments to a maximum of 12 months with the Government in effect paying carrying charges through a modified export subsidy system. In Canada this is sometimes done, but under different conditions than are met in the United States.

More information on quality of CCC grain available for export and exported is needed. Plans are under way to review the grain standards, inspection methods, and provisions of the United States Grain Standards Act. A study of the baking quality of wheat exported is in progress; and a study to determine the advisability of adopting a method for use in measuring corn fragility has been initiated.

Table 1.--Summary
(Data are approximations only)

Commodity and program	Annual averages, 1956-61 for wheat; 1958-61 for other grains							Estimated CCC stocks, September 30, 1962
	Estimated exports from CCC as percentage of inventory	Estimated farm price per bushel	Estimated cash receipts from farm sales	Estimated handling, storage, transportation, processing, and packaging costs	Estimated cost of export subsidy 1/	Estimated administrative cost	Estimated domestic use	
	Percent	Dollars	Million dollars	Million dollars	Million dollars	Million dollars	Million bushels	Million bushels
Wheat								
I	18	1.83	2,022	255	335	3.6	2/	2/
II	7	1.85	2,038	244	342	2.2	2/	2/
III	39	1.81	1,993	280	320	5.2	2/	2/
IV	52	1.80	1,982	297	314	7.0	2/	2/
Rice								
I	105	2/	240	5.0	38	0.2	2/	2/
II	52	2/	240	4.4	38	.1	2/	2/
III	259	2/	240	5.7	38	.4	2/	2/
IV	412	2/	240	6.6	38	.7	2/	2/
Corn								
I	6	1.06	1,686	166	14	2.5	3,326	1,171
II	3	1.06	1,686	172	14	2.3	3,318	1,261
III	4	1.06	1,686	171	14	2.5	3,324	1,214
IV	15	1.04	1,653	170	10	2.5	3,357	1,041
Grain sorghums								
I	5	1.63	390	115	8	1.5	377	660
II	2	1.63	390	119	8	1.5	373	701
III	4	1.63	390	120	8	1.3	375	686
IV	16	1.59	381	112	6	2.3	391	601

1/ Average rate of subsidy times total exports; includes imputed value for CCC donations, barter sales, and other exports.

2/ Estimated to be the same under each program for the category indicated.

Present Program--The Setting

World exports of wheat, rye, and coarse grains--corn, oats, barley, and grain sorghums--were nearly the same in total in the immediate postwar years (1945-49) as they had been 20, and even 35, years earlier, at around 35 million metric tons annually. But during the 1950's exports increased sharply, and the world total in 1959-60 amounted to 61 million metric tons. Much of the gain occurred after 1954, with wheat, corn, and grain sorghums accounting for most of it in the more recent years.

The United States shared fully in the increased exports. Wheat and wheat flour from the United States, which made up a third of total world exports in the early 1950's, showed a modest increase in the proportion in the late 1950's. Corn from the United States declined as a percentage of the world total (with Argentina becoming a strong competitor), but this was offset by increasing proportions for other coarse grains. Exports from the United States in 1959-60 totaled nearly 14 million metric tons of wheat and flour, 11.6 million tons of coarse grains (of which more than half was corn), and nearly a million tons of rice. Exports of wheat and flour from the United States represented 38 percent of the world total in that year, and coarse grains nearly half.

To aid in expansion of U.S. agricultural exports the Congress in 1954 passed the Agricultural Trade Development and Assistance Act, better known as Public Law 480. This act provides for sale of farm products for foreign currencies, donation and barter programs, and sales for credit. Section 402 of the Mutual Security Act of 1954, Public Law 665, authorized the continuation of a program of sales of surplus agricultural commodities for foreign currencies begun the previous year. In addition to Public Laws 480 and 665, credits for the exportation of agricultural commodities were first extended by the Export-Import Bank in 1934; the Commodity Credit Corporation initiated a credit sales program in 1956.

Exports are assisted by sales from CCC stocks at less than domestic market prices and by export payments in cash or in kind to the extent needed to bring U.S. export prices in line with world prices.

In September 1956, a payment-in-kind export program was initiated for wheat. The payment-in-kind comes from CCC inventory. The exporter procures wheat in the free market and on proof of export he is given a certificate having a dollar value equal to the difference between the domestic and world prices times the quantity exported. Certificate wheat subsequently obtained from CCC and exported earns a further certificate payment. The export subsidy for wheat flour, however, is paid in cash.

Under the program in effect prior to September 1956, exports of wheat under the International Wheat Agreement were obtained either from the free market supply with the export payment made in cash or at reduced prices from CCC. Wheat to fulfill other export requirements was obtained from the CCC inventory at prices reflecting world prices. Export requirements for barter and donation programs were filled from CCC inventories.

The primary purpose of the PIK program for wheat was to place the bulk of the export business in the hands of the commercial trade and reduce the volume handled through CCC. It has been stated that farm and market prices and farm incomes have been strengthened because the free market supply rather than CCC is the major source in filling requirements. And the program is believed to have had a beneficial effect on the grain futures market.

Subsequently, PIK programs were developed for corn (May 1958); barley, oats, grain sorghums, and rye (July 1958); rice (December 1958); cotton (May 1959); and nonfat dry milk (March 1962). Wheat PIK certificates are redeemable only in wheat, but feed grain certificates may be used interchangeably among the feed grains and rice certificates may be redeemed in rice or feed grains. Cotton certificates may be redeemed in cash or cotton, and cash redemption has been the practice. Certificates for nonfat dry milk may be redeemed in nonfat dry milk, butter, cheese, and all of the grains.

Subsidy rates are announced daily for wheat and flour and are effective from 3:30 p.m. each day until 3:30 p.m. of the following workday. All exporters receiving wheat subsidies must register their sales. Exporters of feed grains submit daily bids for export subsidies and are not required to register sales, but must export within the 60-day period bid for. Rice subsidies are announced each week and are effective from 3:30 p.m. Wednesday until 3:30 p.m. Wednesday of the following week.

Comparison of Different Programs

Four different export programs for grains are analyzed here, consisting of the current program plus three alternatives. The four types examined are as follows:

I. The current program: PIK covering all exports other than exports under Titles II and III of PL 480, and CCC export credit program. Exports of certain products like wheat flour and cotton textiles receive a cash subsidy. Title II of PL 480 covers Government to Government donations for famine and other emergency relief. Title III covers foreign donations to needy people through accredited private agencies, and barter sales.

II. Cash subsidies except on exports under Titles II and III of PL 480, and CCC credit program, which would be exported from CCC stocks.

III. Cash subsidies except on all exports under PL 480 and PL 665, and CCC credit program, which would be exported from CCC stocks.

IV. No subsidies: All exports moving at prices below domestic cash market prices would come from CCC stocks.

The results of the foregoing program assumptions are briefly summarized for wheat, rice, corn, grain sorghums, and other grains with respect to domestic production, consumption, and exports; farm prices and incomes; CCC inventory management; and CCC costs, for the period 1954 onward.

CCC investment (capital funds tied up in inventory) also will vary by type of export program. In general, program I (PIK) will require less total investment than program II (cash subsidy). Thus, there will be less drain on CCC borrowing power. CCC average annual investments for the crop years 1958-61 are estimated as follows: Wheat, PIK, $2.9 billion, cash subsidy, $3.6 billion; rice about the same under both programs; corn, $2.1 billion and $2.3 billion; and grain sorghums, $0.8 billion and $0.9 billion. The major factor in causing the capital investment to be higher under cash subsidy than under PIK is the comparative slowness of turnover of accumulated stocks under the cash subsidy export program. More of the grain held is priced at the higher prices prevailing in the earlier years. Programs III and IV which involve the use of more CCC grain for export tend to require lower annual average investments than I and II.

Table 2.--CCC average annual dollar investment, crop years

Item	Program I	Program II	Program III	Program IV
	Million dollars	Million dollars	Million dollars	Million dollars
Average 1958-61				
Wheat	2,930	3,590	2,500	2,460
Rice	44	44	43	48
Corn	2,090	2,260	2,030	1,820
Grain sorghums	820	930	870	700
Projection 1966				
Wheat	1,035	1,830	1,300	1,300
Rice	14	14	14	14
Corn	1,010	1,350	1,180	575
Grain sorghums	655	775	675	365

Estimates of Budget Division, ASCS.

Total investment will decline in the future as CCC stocks are reduced, assuming that effective supply-management programs are in operation. But the projections for 1966-67 show approximately the same relative standings in investments under PIK and cash subsidy export programs. A change in relative position occurs for program III (all PL 480 exports from Government stocks) where for 1966-67 CCC investment turns out to be equal to or higher than for PIK. In the case of wheat, this is chiefly because of the need for greater annual acquisitions by CCC to satisfy export requirements when more of the exports are in CCC hands. In the case of the feed grains, the larger investment under program III is occasioned by the higher level of CCC inventories in 1966-67 than would occur under the PIK export program. For wheat, program IV (all exports from Government stocks except when domestic prices are competitive in world markets) also shows a higher investment in 1966-67 than PIK, again because of the large acquisitions by CCC.

The above analysis is on the basis of the old accounting system wherein carrying charges are brought forward from year to year until actual disposition of grain in CCC hands is made. The investment picture would be modified somewhat on the basis of accounting procedures that came into effect after June 30, 1961. On that basis, carrying charges are written off as a current expense each year. CCC investment at any one time becomes smaller. But the investment relationships between the different export programs are similar to those shown under the old procedure.

Wheat

Domestic production, consumption, and exports.- The circumstances that have prevailed from 1954 to the present have given the Government a significant degree of jurisdiction over the annual quantity of wheat exported. Within the limits set by its long-term agreements and other factors, the Government could have altered the quantities exported under any of the program choices by varying the export subsidy or the price at which CCC stocks are offered for export sale, or both. Hence, it is assumed that the exports could have been held constant under the different export program possibilities.

Domestic production and consumption of wheat would be unaffected by the kind of export program we might have had. Wheat for human consumption is notoriously unresponsive to price change, and only small price effects resulting from the different export programs can be visualized. Production likewise would not respond to the small price changes. With exports, production and consumption unaffected by the different types of export programs, the annual carryover by CCC and others would have been unchanged.

A major difference in program results, however, would have occurred in the rate of CCC inventory turnover. As shown in table 3, the annual exports as a percentage of inventory holdings would have been smallest under program II (cash subsidies) and largest under program IV (sales from CCC stocks). Turnover in CCC inventories under the PIK program from 1956 onward was in intermediate position, equivalent to about one complete change of stocks every 5 or 6 years. Assuming that there will be an effective domestic wheat program in operation through 1966-67, a substantial decline in CCC stocks is projected, and exports from CCC stocks as a percentage of holdings would be increased substantially under all programs.

Table 3.--Estimated wheat exports from CCC stocks as a percentage of CCC inventory, by type of program, 1954-61 and 1966 projection

Year beginning July	CCC average beginning and ending inventory	Exports from CCC stocks as percentage of CCC inventory: I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665 2/	III. Cash: subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Percent	Percent	Percent	Percent
1954	875	26	7	18	31
1955	964	28	9	26	36
1956	888	29	13	45	62
1957	830	18	5	34	49
1958	991	14	5	35	45
1959	1,171	13	5	37	44
1960	1,219	19	7	43	54
1961 3/	1,229	16	9	39	55
Average 1956-61	1,055	18	7	39	52
1966 projection 4/	578	35	32	95	121

1/ The PIK program for wheat began in 1956.
2/ Except on exports under Titles II and III, PL 480, and CCC credit.
3/ Preliminary.
4/ Assumes an effective domestic wheat supply-management program through 1966.

Farm prices and income.- As more export wheat is drawn from free-market stocks, as under a cash subsidy or PIK export program, domestic market prices are strengthened. Farm prices and income change in the same direction, since production is not measurably affected by the small changes in price and income changes therefore would be in about the same proportion as price changes. Estimated farm prices are shown in table 4. Such prices would have been slightly higher under program II, cash subsidy, and slightly lower under program IV, sales from CCC stocks, than under the current PIK program. Annual farm income from wheat would have averaged $17 million higher under program II and $42 million lower under program IV than under the current program. While the price level would be somewhat higher under the 1966 projections, the relative prices are projected to behave as in earlier years. At the higher level of prices under programs I and II the export subsidy would necessarily be increased, but this would be paid only for the portion of the crop exported whereas the increased price would apply to the whole crop.

Table 4.--Wheat: Estimated farm prices per bushel under different export programs, 1954-61 and 1966 projection

Year beginning July	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Dollars	Dollars	Dollars	Dollars
1954	2.12	2.14	2.09	2.08
1955	1.99	2.01	1.96	1.95
1956	1.97	1.98	1.94	1.93
1957	1.93	1.94	1.91	1.90
1958	1.75	1.76	1.73	1.72
1959	1.76	1.77	1.73	1.72
1960	1.75	1.77	1.72	1.71
1961 2/	1.84	1.86	1.81	1.80
Average 1956-61	1.83	1.85	1.81	1.80
1966 projection 3/	2.00	2.02	1.97	1.96

1/ The PIK program began in 1956.
2/ Preliminary.
3/ Assumes an effective domestic wheat supply-management program in operation through 1966.

CCC inventory management.- Over 95 percent of the CCC stocks of wheat are stored in commercial warehouses. Large percentages were so stored in the past. CCC wheat usually is commingled by the warehouse operator with other wheat in the conduct of his business. The operator assumes the responsibility to care for the quality of wheat in his possession under the usual terms of warehouse agreements. But some of the wheat is in warehouses and other positions where merchandising operations are not carried out and it is necessary to turn or renew such stocks periodically to avoid deterioration.

There is one other problem. In-transit privileges held by the CCC cease after 2 years unless renewed at an additional cost which generally runs at 2 cents per hundred pounds per year. The potential gain of transit benefits needs to be balanced against the other cost considerations in deciding whether it would be better to move the CCC stocks more often. At present, CCC holds nearly half a million rail carlots of all grain at storage points with in-transit privileges.

Costs.- Current operating costs incurred by CCC in the price-support program for wheat include handling, storage, transportation, and possibly processing and packaging in connection with moving wheat into and out of CCC accounts. During 1956-61, such costs averaged $255 million annually under the PIK export program. It is estimated that they would have been somewhat lower under a cash subsidy program and higher under programs of sales for export from CCC stocks (table 5). The last would involve larger quantities of wheat moving through CCC hands.

Table 5.--Wheat and wheat flour: Estimated cost to CCC for handling, storage, transportation, processing, and packaging under different export programs, 1954-61 and 1966 projection

Year beginning July 1	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million dollars	Million dollars	Million dollars	Million dollars
1954	263	250	260	275
1955	256	240	247	255
1956	236	225	245	260
1957	221	215	240	255
1958	278	270	285	290
1959	252	240	275	285
1960	269	255	310	335
1961 2/	274	260	325	355
Average 1956-61	255	244	280	297
1966 projection 3/	125	120	150	160

1/ The PIK program began in 1956.
2/ Preliminary.
3/ Assumes an effective domestic wheat supply-management program through 1966.

Rice

Domestic production, consumption, and exports.- The estimates made for wheat apply to rice in about the same way. Exports remain constant under all programs. In addition, it is estimated that market prices would have been the same under each of the programs. Domestic production and consumption would not have changed. Consequently, carryover would have been unaffected by different export programs.

Variations in the rate of CCC inventory turnover are shown in table 6. Like wheat, the annual dispositions as a percentage of average inventory holdings would have been smallest under program II and largest under program IV. In all programs, the percentages are high because CCC rice stocks are carried at relatively low levels. Assuming an effective domestic rice program in operation through 1966, a substantial decline in CCC stocks is projected.

With the projected level of exports, the percentage of total exports from CCC stocks will have increased substantially under all programs.

Table 6.--Estimated rice exports from CCC stocks as a percentage of CCC inventory, by type of program, 1954-61 and 1966 projection

Year beginning July	CCC average beginning and ending inventory	Exports from CCC stocks as percentage of CCC inventory: I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	1,000 cwt.	Percent	Percent	Percent	Percent
1954	6,316	13	10	13	71
1955	15,680	36	15	39	53
1956	15,455	140	29	141	141
1957	9,873	84	20	84	84
1958	7,978	96	48	96	122
1959	5,960	108	58	215	282
1960	4,056	137	88	357	513
1961 2/	2,824	79	14	368	729
Average 1958-61	5,204	105	52	259	412
1966 projection 3/	1,750	188	131	714	1,166

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective domestic rice supply-management program through 1966.

Farm Prices and income.- The average price received by farmers for rice normally remains at or above the support rate, since rice producers make extensive use of the support program. During the period 1954-61, rice farmers placed from a fourth to a half of their crop under support each year. Since the PIK program started, however, a smaller proportion of the crop has been placed under support.

Cash receipts from sales of rice by growers would be the same under each export program assumption. Prices are estimated to be about the same under PIK, cash subsidy, and Government export sales programs, basically because virtually all rice is milled and the same firms would handle the rice under the different programs. Production also would be unchanged as a result of export programs.

CCC inventory management.- Under any of the programs the turnover of the CCC stocks would have been substantial, except for some programs prior to 1958 (see table 6). Hence, opportunities to manage the CCC stocks would not have been an important consideration in choice of programs.

Costs. CCC costs for rice for handling, storage, transportation, processing, and packaging under the different programs are shown in table 7. During the 1958-61 period these costs averaged 5.0 million dollars annually under the current program. They would have averaged $4.4 million under program II and $6.6 million under program IV.

Table 7.--Rice: Estimated cost to CCC for handling, storage, transportation, processing, and packaging under different export programs, 1954-61 and 1966 projection (milled basis)

Year beginning July 1	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million dollars	Million dollars	Million dollars	Million dollars
1954	6.3	6.2	6.3	6.8
1955	12.9	12.6	12.9	13.4
1956	12.6	9.2	12.7	12.7
1957	9.5	8.2	9.5	9.5
1958	7.5	6.6	7.5	8.0
1959	6.3	5.6	7.5	8.3
1960	3.7	3.2	4.5	5.7
1961 2/	2.7	2.4	3.2	4.3
Average 1958-61	5.0	4.4	5.7	6.6
1966 projection 3/	1.5	1.5	2.0	2.5

1/ The PIK program for rice began in 1958.
2/ Preliminary.
3/ Assumes an effective domestic rice supply-management program through 1966.

Corn

Domestic production, consumption, and exports.- As with food grains, it is estimated that different corn export programs would not have changed production or exports. But unlike food grains, domestic utilization and carryover would have been changed. The sale of more export corn from CCC stocks rather than from commercial stocks would have meant that more corn would have been available from current production and from commercial channels for feeding and other domestic uses, as well as for sale to the CCC, under price support. It would have lowered market prices somewhat. Unlike wheat, because of a more elastic demand, lower corn prices would have resulted in increased domestic utilization, particularly in the quantities fed. The carryover of corn would have been correspondingly reduced.

Based on past experience with the relationship between feed prices and feeding, it is estimated that of any additional CCC exports, only 75 percent would have been replaced by CCC acquisitions and the remainder would have been fed (table 8).

Table 8.--Corn: Estimated domestic utilization under different export programs, 1954-61 and 1966 projection

Year beginning October	Current program (total) I. PIK 1/	Increase or decrease compared with total under current program: II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1954	2,491	-8	-6	0
1955	2,624	-3	+3	0
1956	2,637	-15	-8	0
1957	2,796	-31	-22	+7
1958	3,068	-10	-5	+34
1959	3,341	-4	+3	+38
1960	3,400	-10	-4	+26
1961 2/	3,493	-9	-4	+25
Average 1958-61	3,326	-8	-2	+31
1966 projection 3/	3,736	-15	-11	+38

1/ The PIK program for corn began in July 1958.
2/ Preliminary as of March 31, 1962.
3/ Assumes an effective domestic feed grain supply-management program in operation through 1966.

The effect of this on carryover in any one year would have been relatively small. But the cumulative change over several years would have been fairly substantial (table 9). For example, the CCC carryover under program IV would be 130 million bushels, or 11 percent, smaller on September 30, 1962, than under program I. By September 30, 1967, the projected CCC carryover would be nearly 300 million bushels smaller under program IV than under program I.

Table 9.--Corn: Estimated CCC ending inventories under different export programs, 1962 and 1967 projection

As of September 30	I. PIK	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1962 1/	1,171	1,261	1,214	1,041
1967 projection 2/	575	730	661	287

1/ Preliminary.
2/ Assumes an effective domestic feed grain supply-management program through 1966-67.

Table 10.--Corn: Estimated CCC acquisitions under different export programs, 1954-61 and 1966 projection

Year beginning October	Current program (total) I. PIK 1/	Increase or decrease compared with total under current program		
		II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1954	397	-23	-17	0
1955	273	-10	+9	0
1956	413	-46	-24	0
1957	421	-93	-68	+21
1958	334	-31	-16	+102
1959	275	-11	+10	+112
1960	366	-30	-11	+78
1961 2/	575	-27	-11	+75
Average 1958-61	388	-25	-7	+92
1966 projection	125	-45	-34	+112

1/ The PIK program for corn began in 1958.
2/ Preliminary.

As with wheat, different export programs would have changed the rate of CCC inventory turnover of corn. But dispositions as a percentage of average inventory holdings would not have been substantially different in most years except under program IV (table 11). Like food grains, the large decline in CCC corn stocks, under the 1966 projection, will be accompanied by a higher turnover under all programs.

Table 11.--Corn: Estimated exports from CCC stocks as a percentage of CCC inventory, by type of program, 1954-61 and 1966 projection

Year beginning October	CCC average beginning and ending inventory 1/	Exports from CCC stocks as percentage of CCC inventory			
		I. PIK 2/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Percent	Percent	Percent	Percent
1954	488	8	2	3	8
1955	685	10	8	12	10
1956	811	15	7	11	15
1957	975	15	3	6	18
1958	1,131	6	2	4	18
1959	1,249	3	2	4	15
1960	1,342	6	3	4	13
1961 3/	1,271	7	4	6	15
Average 1958-61	1,248	6	3	4	15
1966 projection 4/	675	19	9	12	41

1/ Percentages are based upon the average inventories on hand under the current program.
2/ The PIK program began in 1958.
3/ Preliminary.
4/ Assumes an effective supply-management program for feed grains through 1966.

Farm prices and income.- The differences in the prices for corn under different programs are shown in table 12. The differences amount to from 1 to 2 cents per bushel, and the effect on cash receipts from corn could be fairly substantial. Since 1957, program IV would have caused returns from the sales of corn to have averaged $32 million less than under program I. This pattern would hold under the 1966 projection.

Table 12.--Corn: Estimated farm prices per bushel under different export programs, 1954-61 and 1966 projection

Year beginning October	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Dollars	Dollars	Dollars	Dollars
1954	1.43	1.43	1.43	1.43
1955	1.35	1.35	1.35	1.35
1956	1.29	1.30	1.29	1.29
1957	1.11	1.13	1.13	1.11
1958	1.12	1.12	1.12	1.10
1959	1.04	1.04	1.04	1.02
1960	1.00	1.00	1.00	0.98
1961 2/	1.07	1.07	1.07	1.05
Average 1958-61	1.06	1.06	1.06	1.04
1966 projection 3/	1.25	1.27	1.26	1.23

1/ PIK began May 1958.
2/ Preliminary.
3/ Assumes an effective supply-management program for feed grains through 1966.

CCC inventory management.- Unlike wheat, a large share of CCC corn stocks is stored in CCC bins--nearly one-half of total. The CCC bears the responsibility for changes in the quality of such corn. The ability to move CCC stocks into export (significantly greater only under program IV) is but one means for CCC to care for stocks. The other means include better ventilation of bins, increased movement of bin stored grain into merchandising warehouses, and disposal of CCC grain in domestic channels. The desirability of different corn export programs, from the standpoint of inventory management, should be considered in the light of the alternative costs under the above means of dealing with quality.

As with wheat, the loss of in-transit privileges after 2 years is a cost consideration to be taken into account.

Costs.- The nature of the CCC cost items is about the same for corn as for wheat and rice. However, in the case of feed grain, stocks accumulated by CCC under the different programs would vary as previously discussed. As a result, the costs for 1958-61 would have been close under all four programs, averaging $166 million annually under program I and $170 million annually under program IV.

Table 13.--Corn: Estimated cost to CCC for handling, storage, transportation, processing, and packaging under different export programs, 1954-61 and 1966 projection

Year beginning October	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million dollars	Million dollars	Million dollars	Million dollars
1954	77	77	77	77
1955	110	110	110	110
1956	182	183	182	182
1957	188	190	188	187
1958	170	172	170	168
1959	159	162	160	158
1960	177	185	180	177
1961	160	170	175	175
Average 1958-61	166	172	171	170
1966 projection 2/	85	115	110	90

1/ The PIK program began in 1958.
2/ Assumes an effective supply-management program for feed grains through 1966.

Grain Sorghums

Domestic production, consumption, and exports.- It is estimated that production and exports of grain sorghums would remain the same under the different export programs. And like corn, it is estimated that domestic utilization and carryover would be different for the different export programs. As larger amounts of grain sorghums are exported from CCC stocks rather than from commercial stocks, commercial stocks become available for feeding, industrial uses, and exports and for acquisition by the CCC under price support. This would tend to lower market prices and to increase domestic utilization, particularly in the quantities fed. The carryover of sorghum grain would be reduced correspondingly.

Based on the characteristic response of livestock feeding to sorghum grain prices, it is estimated that of any additional CCC exports only 75 percent would be replaced by CCC acquisitions and the remainder would be fed (tables 14 and 15).

Table 14.--Grain sorghums: Estimated domestic utilization under different export programs, 1954-61 and 1966 projection

Year beginning October	Current program (total) I. PIK 1/	Increase or decrease compared with total under current program		
		II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1954	135	-9	-8	0
1955	171	-7	-5	0
1956	185	+2	+2	0
1957	281	-11	-8	+3
1958	280	-4	-2	+15
1959	384	-2	0	+20
1960	429	-4	-1	+12
1961 2/	415	-6	-4	+9
Average 1958-61	377	-4	-2	+14
1966 projection 3/	305	-6	-4	+22

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective feed grain supply-management program through 1966.

Table 15.--Grain sorghums: CCC inventories under different export programs, 1962 and 1967 projection

As of September 30	I. PIK	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1962 1/	660	701	686	601
1967 projection 2/	370	441	416	228

1/ Preliminary.
2/ Assumes an effective feed grain supply-management program through 1966-67.

The differences in carryover are not pronounced for any one year. But the cumulative change over several years would have been fairly large. The CCC carryover under program IV would be 60 million bushels, or 9 percent, smaller on September 30, 1962, than under program I. In contrast, the carryover for programs II and III would be 6 and 4 percent larger than for program I. These differences among programs would be even more pronounced by 1967, assuming an effective feed grain program.

As with wheat, rice, and corn, the turnover in CCC inventory of sorghum grain would differ for the different programs. However, exports as percentage of CCC stocks would not be substantially different except for program IV. This is particularly true for the more recent years. As with corn, the large decline in CCC sorghum stocks under the 1966 projection would be associated with a higher turnover under all programs.

Farm prices and income.- The conditions underlying this section are similar to those for corn. Differences in prices of grain sorghums under different programs are shown in table 18. Generally, the prices would have been about 3 cents per bushel less under program IV, but in 1959 it was estimated at 5 cents less. At 1959 price differences, farm income from the average quantity sold in the period 1955-59 would have been about $16 million less under program IV than under other export programs. While prices under the 1966 projection would be 15 to 18 percent higher than in 1961, the differences among programs would be similar to those for earlier years.

CCC inventory management.- The consideration underlying the management of corn stock generally applies to grain sorghums. Program IV offers most scope for turning stocks (table 17).

Costs.- Like corn, costs of handling, storage, and transportation would vary with amount in CCC storage under the different programs, as well as unit costs. These costs averaged $115 million annually under program I and an estimated $112 million under program IV from 1958 to 1961 (table 19).

Table 16.--Grain sorghums: Estimated CCC acquisitions under different export programs, 1954-61 and 1966 projection

Year beginning October	Current program (total) I. PIK 1/	Increase or decrease compared with total under current program: II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Million bushels	Million bushels	Million bushels
1954	111	-26	-23	0
1955	91	-22	-16	0
1956	33	+4	+4	0
1957	277	-33	-22	+9
1958	249	-14	-6	+44
1959	98	-6	+1	+60
1960	172	-12	-2	+35
1961 2/	171	-16	-13	+26
Average 1958-61	172	-12	-5	+41
1966 projection 3/	100	-19	-16	+68

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective feed grain supply-management program through 1966.

Table 17.--Grain sorghums: Estimated exports from CCC stocks as a percentage of inventory, by type of program, 1954-61 and 1966 projection

Year beginning October	CCC average: beginning and ending: inventory	Exports from CCC stocks as percentage of CCC inventory			
		I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash: subsidies on dollar sales only	IV. Exports from CCC stocks
	Million bushels	Percent	Percent	Percent	Percent
1954 -------------	45	96	18	27	96
1955 -------------	73	90	53	62	90
1956 -------------	76	21	29	29	21
1957 -------------	187	24	1	8	30
1958 -------------	395	8	4	6	23
1959 -------------	530	3	2	3	18
1960 -------------	623	4	1	3	11
1961 2/ ----------	670	4	1	3	10
Average 1958-61 -	554	5	2	4	16
1966 projection 3/ -------	395	13	6	8	35

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective feed grain supply-management program through 1966.

Table 18.--Grain sorghums: Estimated farm prices under different export programs, 1954-61 and 1966 projection

Year beginning October	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.	Dollars per cwt.
1954	2.25	2.27	2.26	2.25
1955	1.75	1.77	1.75	1.75
1956	2.05	2.05	2.05	2.05
1957	1.74	1.76	1.75	1.74
1958	1.78	1.78	1.78	1.75
1959	1.53	1.53	1.53	1.48
1960	1.49	1.49	1.49	1.46
1961 2/	1.71	1.72	1.71	1.68
Average 1958-61	1.63	1.63	1.63	1.59
1966 projection 3/	1.88	1.90	1.89	1.83

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective feed grain supply-management program through 1966.

Table 19.--Grain sorghums: Estimated cost to CCC for handling, storage, transportation, processing, and packaging under different export programs, 1954-61 and 1966 projection

Year beginning October	I. PIK 1/	II. Cash subsidies on dollar sales, Title I PL 480 and PL 665	III. Cash subsidies on dollar sales only	IV. Exports from CCC stocks
	Million dollars	Million dollars	Million dollars	Million dollars
1954	29	29	29	29
1955	38	38	38	38
1956	25	29	27	25
1957	74	79	78	74
1958	124	130	128	125
1959	101	106	106	105
1960	111	110	116	103
1961 2/	124	130	128	115
Average 1958-61	115	119	120	112
1966 projection 3/	75	85	85	55

1/ The PIK program began in 1958.
2/ Preliminary.
3/ Assumes an effective supply-management feed grain program through 1966.

Oats, Barley, and Rye

The effects of the different export programs on oats, barley, and rye would be similar to those outlined in detail for the other feed grains. However, unlike corn and grain sorghums, these grains have presented relatively small inventory management problems for the CCC. Projections for 1966 indicate that this will also be true for the future (tables 20, 21, and 22).

The oats supply for 1961-62 is estimated at 1,340 bushels, the smallest since 1939. The reduction in output of oats in recent years has resulted largely from declining acreage. The 1966 projection shows a continued decline in total supplies. A relatively small part of the total oats supply--usually less than 2 percent--is exported.

There has been considerable variation in the quantity of barley exported--ranging from 43 million bushels in 1954-55 to 118 million in 1959-60. Exports dropped off sharply in 1960 and 1961. Total supply would decline from 566 million bushels in 1961-62 to 385 million in 1966, or about 32 percent, assuming that there will be an effective feed grain supply-management program through 1966.

Table 20.--Oats: Supply, exports, and CCC inventory 1954-61 and 1966 projection

Year beginning July	Supply				Exports			CCC inventories
	Carryover	Production	Imports	Total	Total	Percentage of supply	Sales and other from Government stocks	
	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Percent	Million bushels	Million bushels
1954 ------	227	1,410	20	1,657	13	0.8	13	41
1955 ------	303	1,503	3	1,809	26	1.7	24	57
1956 ------	347	1,163	17	1,527	25	2.1	25	27
1957 ------	240	1,301	25	1,566	26	1.7	26	30
1958 ------	325	1,401	3	1,729	30	1.7	11	47
1959 ------	368	1,052	2	1,422	43	3.0	4	88
1960 ------	267	1,155	1	1,423	27	1.9	1	35
1961 1/ ---	325	1,013	2	1,340	12	.9	0	35
1966 projection 2/ ------	250	880	5	1,135	20	1.8	0	46

1/ Preliminary.
2/ Assumes an effective supply-management feed grain program through 1966.

Table 21.--Barley: Supply, exports, and CCC inventory 1954-61 and 1966 projection

Year beginning July	Supply				Exports			CCC inventories
	Carryover	Production	Imports	Total	Total	Percentage of supply	Sales and other from Government stocks	
	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Percent	Million bushels	Million bushels
1954 ------	71	379	24	474	43	9	30	74
1955 ------	131	401	28	560	103	18	91	61
1956 ------	117	377	27	521	62	12	49	68
1957 ------	127	437	24	588	92	16	86	86
1958 ------	168	477	14	659	117	18	31	109
1959 ------	195	422	18	635	118	19	28	141
1960 ------	167	431	15	613	86	14	28	99
1961 1/ ---	153	393	20	566	60	11	10	90
1966 projection 2/------	80	285	20	385	65	17	3/	3/

1/ Preliminary.
2/ Assumes an effective supply-management feed grain program in operation through 1966.
3/ Assuming continuation of current trends in production and CCC activities, quantity would be negligible.

Table 22.--Rye: Supply, exports, and CCC inventory 1954-61 and 1966 projections

Year beginning July	Supply				Exports			CCC inventories
	Carryover	Production	Imports	Total	Total	Percentage of supply	Sales and other from Government stocks	
	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Percent	Million bushels	Million bushels
1954	15.0	26.0	3.4	44.4	3.0	7	3.0	2.5
1955	16.4	29.1	3.4	48.9	7.0	14	6.4	6.5
1956	16.7	21.3	3.4	41.4	10.7	26	10.1	11.4
1957	6.6	28.5	3.3	38.4	3.5	9	3.5	3.8
1958	9.8	33.2	3.3	46.3	8.5	18	5.1	6.1
1959	12.7	23.1	4.2	40.0	5.3	13	2.0	6.6
1960 1/	10.5	33.0	2.7	46.2	7.7	17	2.5	5.3
1961 2/	14.2	27.3	1.5	43.0	5.0	12	2.0	4.3
1966 projection	14.0	27.0	2.0	43.0	5.0	12	2.0	4.0

1/ Preliminary.
2/ Partly estimated.

The production and supply of rye is small relative to the other feed grains; rye is a minor crop. Data on supply, exports, and CCC holdings are given in table 22.

Other Considerations

Exports of CCC Stocks Through Different Channels

It has been suggested that PL 480 Title I sales for export should be made directly by CCC rather than turning the business over to private exporters to handle. Two major reasons are advanced: (1) Such sales are over and above normal exports and are in effect negotiated by the Government when it works out its country-by-country sales agreements. (2) Payment of dollars to private exporters to finance the transactions is unnecessary; Government grain can be shipped out directly, with payment by the foreign buyer made in foreign currencies as it is now.

On the second point, payment for the grain in dollars is not really avoided. If the grain is moved out of CCC inventory rather than purchased for export in the open market, an equivalent quantity (or nearly equivalent quantity) of grain will back up in the market and ultimately find its way into CCC hands under the price support program so long as there is surplus production.

A question at issue here is whether or not private trade handles the exports at less expense to the Government than it would cost if the Government handled all details itself. It is recognized that exporters are working for profits, and such profits represent the fee which the Government pays for the services rendered. On the other hand, it is possible that out-of-pocket costs for specific services, such as transportation to port, storage, and wharfage, may be less for private trade under certain conditions than for the Government.

The marketing services required for grain are usually provided on a large volume and low markup basis. Competition tends to be keen. Despite standardization of grades, the possibilities of differentiating qualities within grades and mixing them, in the ordinary course of storage and handling, provide enterprise opportunities that are part of the normal competitive grain marketing system. This feature is inherent in any system for marketing fungible commodities in an economical way, and may at times be subject to abuses. However, these are amenable to Government regulations.

On the basis of relative economies alone, the case for government-to-government dealing is not clearly indicated. As long as the Government arranges its export programs to generate competitive bidding from those who would provide the essential services in the course of exporting the CCC stocks, the Government probably would not have a clear cost advantage in hiring such services to do the job itself. On the contrary, there are indications that the cost advantage may rest with the private trade. The fact that some exporters own and operate warehouses, barge lines, and even wharves makes it possible for them to shave costs at certain points and thereby bid strongly for the export business.

Other economic factors must be considered. For wheat and rice, the rate of turnover of CCC stocks would be increased if CCC were to provide all Title I exports from its own stocks. However, nearly one-fifth of the CCC wheat has turned over under the PIK program annually during the past 4 years, and virtually all the rice has moved out each year. (See table 1, page 6.) For corn and grain sorghums, turnover would be reduced compared with PIK (assuming cash subsidies on dollar sales) so long as Title I exports for the feed grains continue small. For wheat, farm prices and incomes would be reduced. For all grains, current Government operating costs--handling, storage, transportation, processing, and packaging--would be increased. This is mainly because of the smaller volume of grain handled (food grains) or stored (feed grains) under the PIK program.

Interchangeability of PIK Certificates

At present there is partial interchangeability of PIK certificates among the grains. While certificates for one feed grain can be redeemed in other feed grains, they cannot be redeemed in wheat. Rice certificates can be redeemed in feed grains but not in wheat. Wheat certificates can be redeemed in wheat only.

At issue is whether the interchangeability of grain certificates should be further liberalized, further restricted, or remain as they are.

The basic principle underlying the PIK certificates is that while they are redeemable in CCC grain stocks moving into export, they are essentially a cash subsidy--i.e., any holder of PIK certificates should be able to convert such claims, either directly or indirectly, into the amount of cash specified on the certificate with little, if any, loss or gain. In view of this principle, there would be no reason to restrict how PIK certificates might be redeemed.

Objections have been voiced to interchangeability, however, on the grounds that local grain prices would suffer by shifting the redemptions away from the original source of grain that gave rise to the certificates. There is little substance to this argument when the marketing system as a whole is examined. Certificates generated by wheat, for example, if redeemed in corn, would require more wheat to come from commercial stocks, since total export and domestic utilization would be maintained under any export plan. Nor would the demand for wheat at any particular point be much affected. Little can happen to local prices that would put them appreciably out of line with national price-making forces in markets as well organized as domestic grain markets.

Markets might not be disturbed by switches of wheat certificates to redemptions in corn or other feed grains, but such switches may have adverse effects on management of CCC inventories. It is not possible to predetermine the results. Most PIK certificate value is generated by wheat, and it seems reasonable to conclude that the trend in switching, if it occurs, will be away from wheat toward other grains.

Use of PIK Certificates for Grain Products for Foreign Donation Programs

Cash procurement by CCC of grain products such as flour and cornmeal for foreign donation programs is unanimously supported by those in the trade expressing an opinion on this subject. Two reasons may be given.

(1) Many small millers would find themselves at a disadvantage if they had to accept script redeemable in export grain instead of cash. Millers would tend to raise their asking prices for products to offset the probable reduction in value of the PIK certificates when sold to grain exporters at a discount (or reduced premium).

(2) The volume of wheat certificates available for redemption in grain would be increased 15 to 20 percent, assuming a continuation of about the same ratio of flour for donation to total wheat exports eligible for PIK certificates as in the recent past. The effect on certificates redeemable in feed grains would be similar though less in magnitude. More grain would move through CCC and less through the open market into export channels.

Use of certificates for grain products for donation with offer of a cash redemption value slightly below the face amount has been suggested. This would likely result in a high percentage of cash redemptions by grain millers. The situation then would not be greatly different from the present cash payment program except that bookkeeping and perhaps other costs would be higher.

Effect of Export Programs on Internal Price Structure

It has been recommended that export subsidy rates for grains be established at levels that will help maintain domestic market price relationships among grains and regions as they would be under freely competitive conditions. According to data presented, feed barley prices in the Pacific Northwest, beginning in 1957-58, have been at levels higher than usual in relation to prices of corn and sorghums in the Midwest, with an alleged harmful effect on producers of livestock and poultry in the Northwest.

Production of grain sorghums and corn has increased more rapidly in recent years than production of barley, and this may account in part for the shift in price relationships. Livestock numbers in the Northwest (Idaho, Washington, and Oregon), moreover, have increased in the past few years, as they have for the United States as a whole. Production of broilers also has increased, with Washington and Oregon ranking 19th and 20th in pounds produced, respectively, among the States in 1961.

The export subsidies are designed to keep barley competitive in world markets. The alternative would be to set the subsidies at a lower rate, causing exports to diminish and domestic prices to be reduced. This course would encourage livestock production further in the Northwest but would result in reduced incomes to growers of feed barley as a cash crop.

Announced Subsidy Versus Bid Subsidy

The CCC announces export subsidy rates for wheat daily and these are effective from 3:30 p.m. each day until 3:30 p.m. of the following workday. All exporters receiving wheat subsidies must register their sales. Rice subsidies are announced each week and are effective from 3:30 p.m. Wednesday until 3:30 p.m. on Wednesday of the following week.

Exporters of feed grains may submit bids daily for export subsidies on feed grains. Firms from whom the CCC accepts a bid are required to export the grain within the period specified. Neither the announced subsidy for rice nor the bid system for feed grains requires registration of sales.

At issue is the desirability of changing the present bid system for feed grains to an announced subsidy plan such as that for wheat.

The wheat payment-in-kind program became effective September 4, 1956, on a daily announced subsidy basis. It required registration of sales by exporters. That requirement was imposed for two reasons: To enable the Department to fulfill its reporting obligations under the International Wheat Agreement; and to lessen speculation by exporters on the subsidy.

The advantages of an announced subsidy payment-in-kind program for feed grains with registration of sales are as follows:

1. It would allow small exporters more flexibility in their operations inasmuch as they do not have the resources to go long or short the subsidy but must know what subsidy they can quote against.

2. An announced subsidy would preclude exporters from getting caught short on a declining subsidy rate, as there would be an announced subsidy each day which they could claim by registration.

3. Registration of sales protects small exporters from an evil that they complain about--speculation. Today's announced subsidy would be that amount necessary for an exporter to compete in the world markets today and any foreign sale made today should be registered to fix today's subsidy against that sale. Without registration, on any given day that the subsidy appeared favorable, exporters willing to take the risk could fix the subsidy in large quantities before making any sales.

Possible disadvantages are:

1. The Department would not have the trade's thinking in the form of bids, but must rely solely on its own market intelligence and evaluation of other factors in arriving at the level of the announced subsidy. The feed grain world markets are not so well organized and not so stable as the world wheat markets, and the

fixing of daily announced subsidies on feed grains would be more difficult than the fixing of the wheat subsidy.

2. The change over to an announced subsidy plan with registration would call for some organizational planning and possibly a small increase in Departmental personnel. Some of the trade may state that there is a disadvantage to an announced subsidy plan with registration as it would introduce inflexibilities and require more paper work on their part, and coarse grains are sold in smaller quantities than wheat.

Extension of Deferred Shipment

Under the current program the effective subsidy at a given time applies to all export commitments accepted at such rate, even though actual shipments may not take place for several months. For wheat, the shipments may be made as far forward as 11 months, depending on whether sales are made early in the crop year. For rice, rates may be effective for any period of time within 4 months, except that two rates may be effective when old crop and new crop rice are being subsidized at the same time. For the feed grains, bids must specify whether shipments are to be made during the first two calendar months or during one or both of the next two 2-month periods. In general, the rates are determined with a view of making U.S. grain exports competitive in world markets in each of the forward periods.

It has been proposed that the delivery period on exports be extended to 12 months, particularly for wheat, and, further, that the subsidy rate be made more flexible with respect to the period of shipment. The reason advanced is that this would enable domestic exporters to compete more effectively for business with other exporting countries now getting such sales.

The pricing policies of the Canadian Wheat Board are pointed out as providing an advantage to exporters that the U.S. subsidy program does not match. In summary, the Canadian Wheat Board does not fix the price at the time of sale to an exporter, but allows the exporter the option of fixing the price between the booking date and up to 22 days after the wheat is loaded out. Inasmuch as the Wheat Board has a monopoly on wheat trade in Canada, including the fixing of prices, this system provides a measure of flexibility for exporters. There being no futures market for wheat in Canada, this system primarily offers to exporters a rather unwieldy substitute.

There are several factors which militate against any attempt to adapt such a price policy to the U.S. situation.

In the first place, there is a strong futures market in the U.S. This, coupled with the current subsidy program, provides much greater flexibility than the government-controlled system in Canada. To attempt to adapt the Canadian system to CCC operations would result in a transfer of a portion of the speculative aspects of the futures markets to the government.

The bulk of the world grain trade is done on the basis of immediate shipment or shipment in less than 4 months. Few sales are for shipment more than 4 months in advance, and these would largely be based on long-term contracts to specified amounts at regular intervals. This would be more feasible for Canadian than for U.S. wheat, as the quality of Canadian wheat is more uniform from lot to lot within seasons. The U.S. system reflecting crop-year considerations and with announced subsidies extending to a maximum of 11 months forward provides opportunity, in conjunction with the futures markets, for U.S. exporters to compete effectively with exporters of any other country in all except a few minor instances. The amount of trade potentially lost under the present subsidy program would likely be too small to measure.

Quality Factors

Interest has been evidenced by members of the grain trade and others in the apparent lack of information on the quality of grains held by CCC and available for export.

Tables 23 and 24 summarizing the grades of corn and wheat received in rail carlots in the United States and the grades of grain exported show that a substantial part of wheat received by rail is No. 1 grade, but exportations are concentrated heavily in the No. 2 grade. This is true in lesser degree for corn. No data are available concerning the extent of moisture and foreign material present within grade or of the baking quality of wheat, comparing rail receipts at markets and export shipments. This is particularly significant with respect to hard wheat where it is generally agreed that domestic millers use and take out of the market the wheat of greater strength for bread-baking purposes.

Table 25 shows the total quantity of wheat in CCC storage as of February 28, 1962, by class, protein range, grade, and position, i.e., whether stored in country houses, terminal houses, or the reserve fleet. These data are based on information reflected by warehouse receipts held by CCC. The bulk of the hard red winter wheat held by CCC ranged from 10 to 14 percent in protein, and for hard red spring wheat the range was largely from 12 to 16 percent protein. No protein test was available for a substantial part of other classes of wheat held. The warehouse receipts are based on actual test for wheat held in terminal houses and in the reserve fleet, but reflect estimates for wheat held in country houses. Generally, it is reported, the warehouse receipts for country houses tend to underestimate actual quality, so that when deliveries are made the quality usually is equal to or better than that indicated by the receipts. Premiums and discounts apply for wheat above or below indicated quality.

Despite the availability of protein content on warehouse receipts for wheat, accurate information on the baking quality of wheat held by CCC is not available. It is contemplated that the sedimentation test, which is a better measure of the baking strength of wheat than any other known test (other than an actual bread-baking test), will be used in the price-support program for the crop year 1962. It is believed possible to increase the production of stronger wheat by increasing the sowing of stronger varieties, thus making available wheat which better meets the demand of most importing countries.

Plans are under way in the Agricultural Marketing Service for a broad general review of the grain standards, inspection methods, and provisions of the United States Grain Standards Act to improve grain inspection and give better recognition to grain of high quality from the viewpoint of its end use. A study of the baking quality of wheat exports has been initiated. A similar study is being conducted to determine the advisability of adopting a method for use in measuring corn fragility or potential breakability.

Table 23.--Corn: Inspected carlot receipts and inspections for export, by grades, 1959 crop year

Item	Total quantity	Grades, as percentage of total						Total
		No. 1	No. 2	No. 3	No. 4	No. 5	Sample grade	
	1,000 bushels	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Inspected carlot receipts	753,964	7.1	31.5	24.4	20.4	8.9	7.7	100
Inspections for export	206,315	0.1	69.5	19.8	2.0	2.0	2.2	1/100

1/ Includes 4.4 percent classified as white corn.

Table 24.--Wheat: Inspected carlot receipts and inspections for export, by classes and grades, 1959 crop year

Class	Total quantity	Grades, as percentage of total						Total
		No. 1	No. 2	No. 3	No. 4	No. 5	Sample grade	
	1,000 bushels	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Inspected carlot receipts								
Hard red winter	737,177	65.8	23.1	7.4	1.5	0.5	1.7	100
Hard red spring	173,314	47.1	23.3	22.5	5.1	.7	1.3	100
Soft red winter	88,620	41.8	44.3	9.8	1.6	.8	1.7	100
White	178,131	63.5	25.8	8.2	1.3	.4	0.8	100
Durum	26,252	32.7	12.5	40.8	8.8	1.6	3.6	100
Inspections for export								
					All other			
Hard red winter	216,373	31.4	68.2		0.5			100
Hard red spring	35,744	32.0	62.5		5.4			100
Soft red winter	36,973	4.7	94.0		1.3			100
White	123,033	58.5	41.5		Negligible			100

Table 25.--Summary of wheat in inventory, as of February 28, 1962

Place stored and grade	Percentage protein								No protein test	Total	Percentage
	Under 10	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16 and over			
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Percent
All Classes											
Country houses:											
Grade 1 ---------	5,907	61,284	68,989	54,231	32,489	23,562	11,781	4,313	80,406	342,962	73.3
Grade 2 ---------	1,624	15,272	11,491	12,267	10,380	10,393	4,865	2,381	25,507	94,180	20.1
Grade 3 and below	127	2,454	1,758	1,385	2,792	4,661	5,425	5,513	6,711	30,826	6.6
Total --------	7,658	79,010	82,238	67,883	45,661	38,616	22,071	12,207	112,624	467,968	45.7
Percentage ---	1.6	16.9	17.6	14.5	9.8	8.2	4.7	2.6	24.1		
Terminal houses:											
Grade 1 ---------	1,540	39,060	104,346	116,450	67,586	29,308	9,216	1,405	7,573	376,484	72.4
Grade 2 ---------	284	6,057	20,666	32,851	23,910	11,573	3,015	733	9,834	108,923	21.0
Grade 3 and below	100	2,177	4,267	5,617	6,984	6,450	4,026	2,485	2,063	34,169	6.6
Total --------	1,924	47,294	129,279	154,918	98,480	47,331	16,257	4,623	19,470	519,576	50.7
Percentage ---	0.4	9.1	24.9	29.8	19.0	9.1	3.1	0.9	3.7		
Reserve fleet:											
Grade 1 ---------	---	1,174	---	---	474	1,489	287	---	20,155	23,579	64.5
Grade 2 ---------	---	---	75	2,418	1,256	2,391	---	---	521	6,661	18.2
Grade 3 and below	---	---	---	5,422	758	136	---	---	---	6,316	17.3
Total --------	---	1,174	75	7,840	2,488	4,016	287	---	20,676	36,556	3.6
Percentage ---	---	3.2	0.2	21.4	6.8	11.0	0.8	---	56.6		
Grand total --	9,582	127,478	211,592	230,641	146,629	89,963	38,615	16,830	152,770	1,024,100	100.0
Percentage ---	0.9	12.4	20.7	22.5	14.3	8.9	3.8	1.6	14.9		
Hard Red Winter											
Country houses:											
Grade 1 ---------	5,881	60,901	66,184	44,268	20,924	15,474	6,576	1,308	78,558	300,075	75.1
Grade 2 ---------	1,602	15,076	11,137	11,254	8,338	7,963	3,285	1,115	24,812	84,583	21.2
Grade 3 and below	125	2,375	1,409	708	1,242	1,136	1,102	460	6,134	14,692	3.7
Total --------	7,608	78,352	78,730	56,231	30,504	24,573	10,963	2,884	109,505	399,350	47.2
Percentage ---	1.9	19.6	19.7	14.2	7.6	6.2	2.7	0.7	27.4		
Terminal houses:											
Grade 1 ---------	1,516	38,627	103,294	109,886	56,071	22,237	7,444	917	5,099	345,091	80.4
Grade 2 ---------	239	5,975	17,540	23,658	12,052	4,845	1,524	246	2,842	68,921	16.0
Grade 3 and below	92	2,132	3,410	2,526	2,654	1,898	777	187	1,675	15,350	3.6
Total --------	1,847	46,734	124,245	136,070	70,777	28,980	9,744	1,350	9,616	429,363	50.8
Percentage ---	0.4	10.9	28.9	31.7	16.5	6.7	2.4	0.3	2.2		

-Continued

Table 25.--Summary of wheat in inventory, as of February 28, 1962--Continued

Hard Red Winter--Continued

Place stored and grade	Percentage protein								No protein test	Total	Percentage
	Under 10	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16 and over			
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Percent
Reserve fleet:											
Grade 1	---	1,174	---	---	---	---	---	---	15,024	16,198	98.9
Grade 2	---	---	---	---	---	---	---	---	181	181	1.1
Grade 3 and below	---	---	---	---	---	---	---	---	---	---	---
Total	---	1,174	---	---	---	---	---	---	15,206	16,380	2.0
Percentage	---	7.2	---	---	---	---	---	---	92.8		
Grand total	9,455	126,260	202,975	192,301	101,280	53,553	20,708	4,233	134,327	845,092	100.0
Percentage	1.1	14.9	24.0	22.8	12.1	6.3	2.4	0.5	15.9		
Hard Red Spring											
Country houses:											
Grade 1	15	304	2,776	9,943	11,555	8,067	5,201	3,004	1,383	42,247	62.8
Grade 2	---	189	352	1,006	2,032	2,421	1,577	1,264	246	9,088	13.5
Grade 3 and below	1	76	347	676	1,550	3,521	4,318	5,052	394	15,934	23.7
Total	15	568	3,475	11,625	15,137	14,010	11,096	9,320	2,024	67,269	39.7
Percentage	0.2	0.8	5.2	17.3	22.5	20.7	16.5	13.8	3.0		
Terminal houses:											
Grade 1	1/	69	961	6,522	11,492	7,065	1,770	488	1,068	29,435	33.7
Grade 2	---	11	3,086	9,169	11,853	6,723	1,489	485	6,456	39,271	44.9
Grade 3 and below	---	35	841	3,073	4,326	4,549	3,248	2,298	292	18,662	21.4
Total	1/	115	4,887	18,764	27,671	18,337	6,507	3,271	7,816	87,368	51.6
Percentage	---	0.1	5.6	21.6	31.7	21.0	7.4	3.7	8.9		
Reserve fleet:											
Grade 1	---	---	---	---	474	1,489	287	---	---	2,250	15.3
Grade 2	---	---	74	2,418	1,256	2,391	---	---	---	6,140	41.8
Grade 3 and below	---	---	---	5,422	758	136	---	---	---	6,315	42.9
Total	---	---	74	7,840	2,487	4,015	287	---	---	14,704	8.7
Percentage	---	---	0.5	53.3	16.9	27.3	2.0	---	---		
Grand total	15	683	8,436	38,289	45,295	36,362	17,890	12,591	9,840	169,341	100.0
Percentage	---	0.4	5.0	22.6	26.7	21.5	10.6	7.4	5.8		

-Continued

Table 25.--Summary of wheat in inventory, as of February 28, 1962--Continued

White Wheat

Place stored and grade	Percentage protein								No protein test	Total	Percentage
	Under 10	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16 and over			
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Percent
Country houses:											
Grade 1	5	14	17	7	4	10	---	---	146	203	37.4
Grade 2	22	4	1	4	3	1	1	---	208	244	44.9
Grade 3 and below	1	4	2	1	---	1	4	---	83	96	17.7
Total	28	22	19	11	7	12	5	---	437	542	7.0
Percentage	5.2	4.0	3.5	2.0	1.3	2.3	0.9	---	80.8		
Terminal houses:											
Grade 1	13	49	6	3	3	---	2	1/	1,181	1,257	76.6
Grade 2	20	22	9	---	2	---	---	---	310	364	22.2
Grade 3 and below	8	2	2	1/	---	---	---	---	7	19	1.2
Total	41	73	17	3	5	---	2	1/	1,498	1,639	21.5
Percentage	2.5	4.4	1.0	0.2	0.3	---	0.2	---	91.4		
Reserve fleet:											
Grade 1	---	---	---	---	---	---	---	---	5,131	5,131	93.8
Grade 2	---	---	---	---	---	---	---	---	339	339	6.2
Grade 3 and below	---	---	---	---	---	---	---	---	---	---	---
Total	---	---	---	---	---	---	---	---	5,470	5,470	71.5
Percentage	---	---	---	---	---	---	---	---	100.0		
Grand total	69	94	36	14	12	12	7	1/	7,406	7,651	100.0
Percentage	0.9	1.2	0.5	0.2	0.2	0.2	---	---	96.8		

Soft Red Winter

Place stored and grade	Under 10	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16 and over	No protein test	Total	Percentage
Country houses:											
Grade 1	5	66	4	3	1	---	---	---	306	387	56.8
Grade 2	---	2	2	2	1	1	---	---	214	221	32.5
Grade 3 and below	---	---	---	---	---	1	---	---	72	73	10.7
Total	5	68	6	5	2	1	---	---	592	681	74.7
Percentage	0.8	10.0	0.9	0.8	0.3	0.2	---	---	87.0		
Terminal houses:											
Grade 1	1/	1	---	---	---	---	---	---	63	64	28.0
Grade 2	---	---	---	9	---	---	---	---	121	130	56.3
Grade 3 and below	---	---	1	2	---	---	---	---	33	36	15.7
Total	1/	1	1	11	---	---	---	---	217	230	25.3
Percentage	---	0.7	0.5	4.6	---	---	---	---	94.2		
Grand total	6	69	8	16	2	1	---	---	809	911	100.0
Percentage	0.6	7.6	0.8	1.7	0.3	0.2	---	---	88.8		

-Continued

Table 25.--Summary of wheat in inventory, as of February 28, 1962--Continued

Place stored and grade	Percentage protein: Under 10	10-10.9	11-11.9	12-12.9	13-13.9	14-14.9	15-15.9	16 and over	No protein test	Total	Percentage
					Durum						
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	Percent
Country houses:											
Grade 1	---	---	---	---	---	---	---	---	5	5	79.6
Grade 2	---	---	---	---	---	---	---	---	1	1	20.4
Grade 3 and below	---	---	---	---	---	---	---	---	---	---	---
Total	---	---	---	---	---	---	---	---	6	6	100.0
Grand total	---	---	---	---	---	---	---	---	6	6	100.0
Percentage	---	---	---	---	---	---	---	---	100.0		
					Mixed						
Country houses:											
Grade 1	1	---	8	10	4	10	5	1	8	46	37.8
Grade 2	---	1	---	1	7	7	1	1	25	43	35.2
Grade 3 and below	1/	---	1/	1/	1	3	1/	1	27	33	27.0
Total	1	1	8	10	12	20	6	3	60	121	11.0
Percentage	0.8	0.8	6.9	8.5	9.9	16.4	4.6	2.2	49.9		
Terminal houses:											
Grade 1	11	314	85	39	21	6	---	---	162	637	65.2
Grade 2	25	49	31	15	4	4	3	2	105	238	24.3
Grade 3	---	8	12	17	4	4	2	---	55	102	10.5
Total	36	371	128	70	28	14	5	2	322	976	89.0
Percentage	3.7	38.0	13.1	7.2	2.9	1.4	0.5	0.2	33.0		
Grand total	37	372	137	81	40	34	10	5	382	1,097	100.0
Percentage	3.4	33.9	12.4	7.4	3.7	3.1	0.9	0.4	34.8		

1/ Less than 500 bushels.

Totals and percentages are based on unrounded numbers for the individual classes of wheat.

Inventory Management Division, ASCS
Agriculture, Washington, D. C.
March 30, 1962

UNITED STATES DEPARTMENT OF AGRICULTURE
1862
1962

Growth Through Agricultural Progress